



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,581	01/25/2007	Takashi Udagawa	Q80423	3372
23373 7590 02/19/2010				
SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
SAYADIAN, HIRAYR				
ART UNIT		PAPER NUMBER		
2814				
NOTIFICATION DATE		DELIVERY MODE		
02/19/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com

PPROCESSING@SUGHRUE.COM

USPTO@SUGHRUE.COM

Office Action Summary

Application No.

10/591,581

Applicant(s)

UDAGAWA, TAKASHI

Examiner

HRAIR A. SAYADIAN

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED OFFICE ACTION

Election Requirement

1. Applicant is required under 35 U.S.C. § 121 to elect one of the following patentably distinct inventions for prosecution on the merits:

Species A: An embodiment wherein the cubic boron phosphide based semiconductor layers are provided to serve as cladding layers.

Species B: An embodiment wherein the second cubic boron phosphide based semiconductor layer is provided to serve as window layer.

Species C: An embodiment wherein the second cubic boron phosphide based semiconductor layer is provided to serve as current-diffusion layer.

Species D: An embodiment wherein the second cubic boron phosphide based semiconductor layer is provided to serve as contact layer.

Applicant is required under 35 U.S.C. § 121 to elect a single disclosed invention for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

A Requirement to Elect between Species is proper if: (1) the Species are "distinct," and (2) examining the Species together would be a "serious burden." See, M.P.E.P. § 803I. See also M.P.E.P. § 808, stating that a proper restriction requirement must satisfy both prongs.

The above-identified Species are patentably distinct because they have mutually exclusive characteristics (a cladding layer, a window layer, a current diffusion layer, and a contact layer are different from each other). In addition, these Species are not obvious variants of each other based on the current record. The first prong of the test therefore is satisfied.

Additionally, searching for and examining these distinct Species together causes serious burden. In the instant case, searching for the mutually exclusive characteristics of the Species requires different fields of search (including searching different classes/subclasses and electronic resources, or employing different search queries, or both). See, for example, M.P.E.P. § 808.02

clearly stating that different field of search is a way to establish serious burden. And the prior art applicable to one Species would not likely be applicable to other Species. See, for example, M.P.E.P. § 808.02(C). Furthermore, the Species are likely to raise different non-prior art issues under 35 U.S.C. § 101 or 35 U.S.C. § 112, first paragraph, or both. The second prong of the test therefore is also satisfied.

Accordingly, requiring election between the different Species is proper.

A complete reply to this requirement must:

- 1. elect an invention to be examined even though the requirement may be traversed (37 CFR § 1.143); and**
- 2. list all claims reading on the elected invention, including any claims subsequently added.**

An argument that all claims are allowable, or that the requirement is in error, is nonresponsive unless accompanied by an election. See, for example, M.P.E.P § 818.03(b).

To preserve a right to petition under 37 CFR § 1.144, Applicant must elect with traverse. See, for example, M.P.E.P. § 818.03(c). An untimely traversal loses the right to petition under 37 CFR § 1.144. A traversal must be presented at the time of election to be considered timely.

If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. See, for example, M.P.E.P § 818.03(a).

Should Applicant traverse on the ground that the Species are not patentably distinct, Applicant should submit evidence or identify such evidence now of record showing them to be obvious variants or clearly admit on the record that this is the case. In either instance, if Examiner finds one of the Species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103(a) of the other Species.

If claims are added after the election, Applicant must indicate which of these claims are readable on the elected invention. See M.P.E.P. § 809.02(a).

Upon the cancellation of claims to a non-elected invention, Applicant must amend the inventorship complying with 37 CFR § 1.48(b) if one or more of the currently named inventors

is no longer an inventor of at least one claim remaining in the application. Amending inventorship must be accompanied by a request under 37 CFR § 1.48(b) and include the fee required under 37 CFR § 1.17(i).

Upon the allowance of a generic claim, Applicant will be entitled to consideration of pending claims to additional Species which depend from, or otherwise require all the limitations of, an allowable generic claim as provided by 37 CFR § 1.141.

CONCLUSION

2. A shortened statutory period for reply to this Office Action is set to expire ONE MONTH from the mailing date of this Office Action. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

Any inquiry concerning this communication or earlier communications from an Examiner should be directed to Examiner Hrayr A. Sayadian, at (571) 272-7779, on Monday through Friday, 7:30 am – 4:00 pm ET.

If attempts to reach Mr. Sayadian by telephone are unsuccessful, his supervisor, Supervisory Primary Examiner Wael Fahmy, can be reached at (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available only through Private PAIR.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. The Electronic Business Center (EBC) at (866) 217-9197 (toll-free) may answer questions on how to access the Private PAIR system.

/Hrayr A. Sayadian/
Patent Examiner, Art Unit 2814